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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,512	09/01/2006	Francisco Javier Agejas-Chicharro	X-16538	6672
25885 7590 01/25/2010 ELI LILLY & COMPANY PATENT DIVISION P.O. BOX 6288 INDIANAPOLIS, IN 46206-6288				
EXAMINER ROBINSON, BINTA M				
ART UNIT		PAPER NUMBER		
1625				
NOTIFICATION DATE		DELIVERY MODE		
01/25/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@lilly.com

# Office Action Summary

**Application No.**

10/598,512

**Applicant(s)**

AGEJAS-CHICHARRO ET AL.

**Examiner**

BINTA M. ROBINSON

**Art Unit**

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Applicant Arguments filed 9/29/09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4, 5, 14, 17, 18, 21, 22 and 26 is/are pending in the application.
- 4a) Of the above claim(s) 1, 2 and 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5 is/are rejected.
- 7) ☒ Claim(s) 14, 17-18, 21-22, 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Proficiency's Patent Drawing Review (PTO-544)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **Detailed Action**

The 103 (a) rejection over Hcaplus 130:124995 is rendered moot only over compound wherein R1 is tBuOCO-. Claims 1, 2, 4 are withdrawn from examination as being drawn to non-elected subject matter.


### **Modified rejection**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hcaplus 130:124995 in view of Patani et. al.



Hcaplus 130:124995 teaches the compound, . The difference between the prior art compound and the instantly claimed compounds is the placement of the R2Ar moiety on the pyridyl ring; the second difference is the R1 moiety which in the prior art is carboxyl, but in the instant claims is aldehyde. In the prior art compound, the R2Ar moiety is in the ortho position and in the instant compound it is in the meta position. Patani teaches that that the types of nonclassical bioisosteres used for the replacement of the acidic hydroxyl group of a particular carboxylic acid can be hydrogen. See pages 3154 and page 3168 of Patani et. al. The instant compounds are bioisosteres of the prior art compounds. Patani teaches that bioisosteres are

compounds that elicit similar biological activity which is attributable to common physicochemical properties. See page 3148 of Patani et. al. Patani also teaches that Langmuir compared the physical properties of various molecules and found them to be similar, and identified 21 groups of isosteres. Patani et. al. teaches that the widespread application of the concept of isosterism to modify biological activity has given rise to the term bioisosterism, and that more recently, the definition of bioisosterism has been broadened to mean "compounds or groups that possess near-equal molecular shapes and volumes, approximately the same distribution of electrons, and which exhibit similar physical properties..." See page 3148. Patani et. al. also teaches that the critical component of bioisosterism is that bioisosteres affect the same pharmacological target as agonists or antagonists and thereby, have biological properties which are related to each other. The compounds are used for treating disorders mediated full or in part by mGluR5 as are the instant compounds. The prior art compounds and instant compounds are positional isomers of one another, bioisosteres of each other and are similar structurally. Due to the similarity in structure between the prior art compounds and instant compounds and the fact that the instant compounds and compositions have the same use as the prior art compounds, it would have been obvious to one of ordinary skill in the art to modify the prior art compounds to arrive at the instant compounds to synthesize bioisosteres of the prior art compounds. Accordingly, the compounds and compositions are deemed unpatentable therefrom in the absence of a showing of unexpected results for the claimed compounds over those of the generic prior art compounds.

Claims 14, 17-18, 21, 22, and 26 are objected to because they are based on a rejected claim.

**Response to Applicant's remarks**

The applicant's amendment does not overcome the 103 (a) rejection above because the instant compounds are still bioisosteres of the prior art compounds in that the acidic hydroxyl group of the carboxylic acid moiety in the compound can be replaced by a bioisosteric replacement of hydrogen.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binta M. Robinson whose telephone number is (571) 272-0692. The examiner can normally be reached on M-F (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-0670.

A facsimile center has been established. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier numbers for accessing the facsimile machine are (703)308-4242, (703)305-3592, and (703)305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

/Binta M Robinson/  
Examiner, Art Unit 1625

**/Janet L. Andres/**

**Supervisory Patent Examiner, Art Unit 1625**